

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An X-ray microscope which includes a device for generating X-rays, a lens for forming an image of an object, and an X-ray detector for detecting an image of the object, the device for generating X-rays provided with:

- means for producing a fluid jet having a curvilinear cross-section,
- means for forming a focused radiation beam whose focus is situated on the fluid jet,

said focused radiation beam comprising a beam of electrically charged particles,

wherein the cross-section of the fluid jet in the direction of the focused beam is smaller than that in the direction transversely thereof.

2. (Previously presented) An X-ray microscope as claimed in Claim 1, wherein the beam of electrically charged particles comprises an electron beam.

3. (Cancelled)

4. (Previously presented) An X-ray microscope as claimed in Claim 1, wherein the fluid jet consists essentially of liquid oxygen or nitrogen.

5. (Previously presented) An X-ray microscope as claimed in Claim 1, wherein the means for producing a focused beam of

electrically charged particles comprises an electron gun for a cathode ray tube, the X-ray microscope including a condenser lens disposed between the fluid jet and an object to be imaged by means of the X-ray microscope.

6. (Currently amended) An electron microscope comprising means for producing a focused electron beam, a device for generating X-rays, a lens for forming an image of an object, and a detector for detecting the image of the object, said device for generating X-rays including:

- means for producing a fluid jet having a curvilinear cross-section, and
- means for directing the focus of the electron beam onto the fluid jet,

wherein the cross-section of the fluid jet in the direction of the focused beam is smaller than that in the direction transversely thereof.

7. (Previously presented) An electron microscope as claimed in Claim 6 and including an X-ray microscope, said device for generating X-rays acting as the X-ray source for the X-ray microscope.

8. (Previously presented) An electron microscope as claimed in Claim 6, the electron microscope being a scanning electron microscope.